

131 161
TSEYTLIN, S.G.

Content and determination of actinium and its products in mineral waters. V. I. Baranov and S. G. Zaitlin (*Compt. rend. Acad. Sci. U.R.S.S.*, 1941, **23**, 603-605) - Contents of Ac, X, Ac, Ra, and Th-X in two Caucasian spring waters and a ferruginous sediment from one of the springs are recorded, and discussed in relation to the mechanism of the removal of the radioelements from underlying deposits. Ra and Ac are conc. in the sediment. A. J. E. W.

Tseyt 47 S.G.

The radioactive elements in some soils of the Crimea sampled along the vertical sections. S. G. Tseitlin. *Trav. lab. biogeochim. acad. sci. U.R.S.S.* 7, 127-9(1944); cf. C.A. 35, 8183^a.—Samples of soil and rock were taken along the vertical sections to learn the conditions of migration of radioactive elements in connection with soil formation. All soils were found richer in Ra and Th than the corresponding underlying strata. The soils on limestone were enriched much more than those on diorite rock. Since the destruction of the limestone was accompanied by a considerable loss of Ca but Ra remained in place, it is suggested that Ra and Th were linked not to Ca but to accessory minerals, which migrated into terra rossa. The tabulated data show $0.15\text{--}12.10 \times 10^{-6}\%$ of Th and $1.00\text{--}19 \times 10^{-11}\%$ of Ra in the soils and rocks of the Crimea. Valery A. Strel'tsov .

SMORCHKOV, I. Ye.; TSEYTLIN, S.G.; BATYREVA, N.N.

Forms of uranium occurrences in granitoid rocks of the Kurama zone
(Central Asia). Trudy IGEM no.99:60-67 '63. (MIRA 16:9)
(Kurama Range--Uranium ores) (Chatkal Range--Uranium ores)

TSEYTLIN, S.G.; BYKOV, P.I.

Utilization of ammonium fluoride and the tetrasubstituted sodium
salt of ethylenedinitrilo tetraacetic acid in determining
radium and its isotopes. Radiokhimiia 3 no.3:356-358 '61.
(MIRA 14:7)

(Radium---Isotopes)

S/015/60/000/008/002/003
A052/A129

AUTHOR: Tseytlin, S. G.

TITLE: Application of sodium ethylenediaminetetraacetate (trilon B) to radiochemical analysis

PERIODICAL: Referativnyy zhurnal. Geologiya, no. 8, 1960, 194, abstract 15020
(Tr. In-ta geol. rudn. mestorozhd., petrogr., mineralogii i geokhimii.
AN SSSR, 1959, no. 28, 148 - 151)

TEXT: The method of determining large and small quantities of Ra and ThX in Th units is based on the capacity of the tetrasubstituted sodium ethylenediaminetetraacetate to dissolve Ba, Ra and ThX sulfates. A weighed test portion of 10 g to 0.01 g (depending on Ra and ThX contents) is put into hydrochloric acid solution; into the same solution 0.02 - 0.05 g BaCl_2 is put. Ba is precipitated with diluted H_2SO_4 . Together with BaSO_4 Ra, ThX and MnSO_4 sulfates are precipitated. They are filtered off after 2 - 3 hours by means of a glass crucible with a porous bottom no. 3 with a slight rarefaction, carefully rinsed with water, washed off with a hot solution of tetrasubstituted sodium ethylenediaminetetraacetate. The crucible with a porous bottom is boiled during 3 - 4 min in 10 - 12 ml of the same

Card 1/2

Application of sodium ethylenediaminetetraacetate...

S/015/60/000/008/002/003
A052/A129

solution. Both solutions are joined (40 - 50 ml total volume) and boiled until the precipitate is completely dissolved (10 - 15 min). The solution obtained is boiled down to the volume of 30 - 35 ml, cooled and placed into a bubbler. The quantity of ThX expressed in Th units and the quantity of Ra contained in this solution are determined on the electrometer. The accuracy of the method is acceptable for the purpose of radiochemical analysis.

V. S. Melamedova

[Abstracter's note: Complete translation]

Card 2/2

TSEYTLIN, S.G.

Use of sodium ethylenediaminetetraacetate (Trilon B) in radio-
chemical analysis. Trudy IGEM no.28:148-151 '59.
(MIRA 13:4)

(Acetic acid) (Radiochemistry)

S/186/61/003/003/015/018
E071/E435

AUTHORS: Tseytlin, S.G. and Bykov, P.I.

TITLE: Application of Ammonium Fluoride and Tetrasubstituted Sodium EDTA Salt in the Determination of Radium and its Isotopes

PERIODICAL: Radiokhimiya, 1961, Vol.3, No.3, pp.356-358

TEXT: For the determination of radium and its isotopes by the emanation method, it is necessary to transfer rocks and minerals into solution. Usually this is done by fusion with a mixture of soda, sodium hydroxide and barium chloride. This method is laborious, particularly when large samples (10 to 20 g) are to be treated or when the percentage of silica is high (50 to 70%). The authors developed a simplified method of transferring specimens into solution. The method is based on mixing the sample investigated with ammonium fluoride (4 g of fluoride per 1 g of silica) in an iron crucible and heating it at 600 to 650°C until the evolution of fumes stops. Subsequently, the so treated sample is either dissolved in hydrochloric acid or fused with sodium peroxide, depending on its composition. The analytical procedure is described in detail. A comparison of analytical results obtained
Card 1/2

Application of Ammonium . . .

S/186/61/003/003/015/018
E071/E435

by the usual and proposed methods is given in a table. The results either agree or differ within the limits of the usual analytical error. There are 1 table and 5 Soviet references.

SUBMITTED: June 23, 1960

Card 2/2

AFANAS'YEV, G.D.; TSEYTLIN, S.G.

Preliminary studies of radioactivity of North Caucasian rocks
and their importance for petrology. Izv. AN SSSR. Ser. geol. 23
no.3:16-30 '58. (MIRA 11:5)

1. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralologii
i geokhimii AN SSSR, Moskva.
(Caucasus, Northern--Rocks, Igneous)

TSEYTLIN, S.G.

AUTHORS: Afanas'yev, G.D., Tseytlin, S.G.

11-58-3-2/14

TITLE: Preliminary Results of the Study of Rock Radioactivity in North Caucasus and Their Importance for Several Problems of Petrology (Predvaritel'nyye itogi izucheniya radioaktivnosti gornyykh porod Severnogo Kavkaza i ikh znacheniye dlya nekotorykh problem petrologii)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya, 1958, # 3, pp 16-30 (USSR)

ABSTRACT: This article sums up the works of many geologists and petrographers and presents a detailed table of the stratigraphic classification of magmatogene rocks of the North Caucasus according to their age. It stresses the importance of studying the presence of the radio-active elements in these rocks. These studies are not yet completed, but from preliminary surveys it was possible to prepare tables of these rocks according to their age and to their petrographic peculiarities. The study of endogenous processes in the earth-crust will enable us to enlarge our knowledge of the general structure of the earth and, especially, to substantiate a theory on the development of volcanoes, which perhaps derive their energy from the process of disintegration of radioactive elements

Card 1/2

11-58-3-2/14

Preliminary Results of the Study of Rock Radioactivity in North Caucasus
and Their Importance for Several Problems of Petrology

which generate the initial heat. The authors cite a number of foreign and Soviet scientists and geologists and conclude that the systematic study of the presence of radioactive elements in various rock formations will help to solve the question of volcanic heat. There are 14 Soviet, 4 American, 2 English, 1 Japanese and 1 Mexican reference.

ASSOCIATION: Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii Akademii Nauk SSSR, Moskva (Institute for Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry of the USSR Academy of Sciences, Moscow)

SUBMITTED: November 14, 1957.

AVAILABLE: Library of Congress

Card 2/2

10 9300
13,2000
26.4140

87313

S/019/60/000/021/134/145
A152/A029

AUTHORS: Matveyev, V.N.; Kvashnin, A.I.; Molotkov, I.P ; Tseytlin, S.I.;
Kalinin, Yu.I.

TITLE: A Test Stand for Imitating the Controllability of Longitudinal and
Sidelong Movements of Aircraft

PERIODICAL: Byulleten' izobreteniy, 1960, No. 21, p. 71

TEXT: Class 62c, 27₀₃. No. 133355 (649576/27 of January 3, 1960). 1)
This stand is employed, for example, in investigating control dynamics, and in-
cludes an electronic model and a three-component servo system that interacts
with the actuating mechanism. It has the following special feature: in order
to make it possible to visually observe the position of aircraft with regard to
the earth and sky, as it performs unlimited maneuvers, and also while it is sub-
jected to the effects of any gusts and jet flows, the three-component actuating
mechanism is fitted with two mutually-perpendicular carriages carrying a diapos-
itive whose image is projected on a screen installed in front of the pilot. 2)
A variant of 1, distinguished by the following special feature: in order that
the coordinates may be reproduced in a way ensuring a correct horizontal shift-

Card 1/2

87313

S/019/60/000/021/134/145

A152/A029

A Test Stand for Imitating the Controllability of Longitudinal and Sidelong Movements of Aircraft

ing of the diapositive during yawings and a proper vertical representation of a pitching moment, irrespectively of the magnitude of bank, this variant is provided with two sine-cosine potentiometers, one of which is fed with the pitching moment voltage, the other with a voltage corresponding the the given yawing.

X

Card 2/2

GOLDSHTEYN, R.I.; ZEL'KIND, Ye.M.; TSEYTLIN, S.I.; CHEKULAYEVA, Yu.I.; KUROVA, E.A., ved. red.; SOLOV'YEVA, S.S., ved. red.

[Petroleum refining abroad; a statistical and economic collection] Neftepererabotka za rubezhom; statistiko-ekonomicheskii sbornik. Moskva, TsNIIITEIneftegaz, 1963. 112 p. (MIRA 17:12)

1. Moscow. TSentral'nyy nauchno-issledovatel'skiy institut informatsii i tekhniko-ekonomicheskikh issledovaniy po nef-tyanoy i gazovoy promyshlennosti.

TSEYTLIN, N.M.

Methodology of precision measurements with the aid of an
"artificial moon." Izv.vys. ucheb.zav.; radiofiz. 6 no.6:
1265-1268 '63. (MIRA 17:4)

1. Nauchno-issledovatel'skiy radiofizicheskiy institut pri
Gor'kovskom universitate.

TSEYTLIN, S.I., kand. tekhn. nauk, dotsent

Nomograms for calculating parameters of harmonic vibrations. Priboro-
stroenie no.7:4-7 J1 '65. (MIRA 18:7)

L 3296-66 ENT(1)/EWA(h) GW

ACCESSION NR: AP5025048

UR/0286/65/000/016/0088/0089

534.63 : 621.317.7

AUTHOR: Tseytlin, S. I.

TITLE: A seismic-type vibrosensor. Class 42, No. 173963

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 88-89

TOPIC TAGS: geophysical instrument, seismic instrument, vibration sensor

ABSTRACT: This Author Certificate introduces a seismic-type, one-component vibrosensor which contains an inertial mass coupled to the frame of the instrument by elastic or magnetic suspension. The instrument is equipped with a magnetic correction device to extend its frequency range and increase its sensitivity to vibration components which are not being measured. The correction unit consists of a fixed magnetic and ferromagnetic armature which is attached to the inertial mass. When the inertial weight moves, the armature develops a force directed counter to that of the elastic suspension (see Fig. 1 of Enclosure). Orig. art. has: 1 figure. [14]

ASSOCIATION: none

SUBMITTED: 16Nov63

NO REF SOV: 000

Card 1/2

ENCL: 01

OTHER: 000

SUB CODE: ES

ATD PRESS: 4/10

L 3296-66

ACCESSION NR: AP5025048

ENCLOSURE: 01

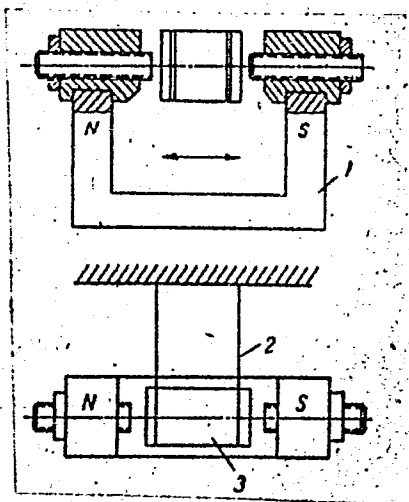


Fig. 1. Seismic-type vibrosensor

1 - Fixed magnet; 2 - elastic suspension; 3 - ferromagnetic armature with inertial mass.

Card 2/2 DP

IVANOV, Yu.D., inzh.; TSEYTLIN, S.L.

Mechanization of labor-consuming production processes at the
"Krasnaia Krutil'shchitsa" Silk Factory. Mekh. i avtom. proizv.
15 no. 5:23-25 My '61. (MIRA 14:5)
(Silk manufacture—Technological innovations)

TSEYTLIN, S.M.

Characteristics of the development of Pleistocene glaciations in
the northwestern part of the Siberian Platform. Dokl. AN SSSR ¹³⁸
no. 4:920-923 Je '61. (MIRA 14:5)

1. Geologicheskii institut AN SSSR. Predstavleno akademikom
D.I. Shcherbakovym.
(Siberian Platform--Glacial epoch)

TSEYTLIN, S.M.; LAVRUSHIN, Yu.A., otv.red.; PEYVE, A.V., glavnyy red.;
MAPKOV, M.S., red.; MENNER, V.V., red.; TIMOFFEYEV, P.F., red.

[Comparison of Quaternary sediments in the glacial and
extraglacial zones of Central Siberia (Lower Tunguska Basin).]
Sopostavlenie chetvertichnykh otlozhenii lednikovoi
vnelednikovoi zon tsentral'noi Sibiri (bassein nizhnego Tunguski).
Moskva, Izd-vo "Nauka," 1964. 184 p. (Akademiia nauk SSSR.
Geologicheskii institut. Trudy, no. 100) (MLHA 17:6)

1. Chlen-korrespondent AN SSSR (for Peyve).

TSEYTIIN, S.M.

New Paleolithic site in the Yenisey Valley. Siul. Koz. chety.
per. no.29:175-182 '64. (MIRA 17:8)

TSEYTLIN, S.M.

Eopleistocene in the basin of the Lower Tunguska River. Dokl.AN
SSSR 133 no.5:1183-1186 Ag '60. (MIRA 13:8)

1. Predstavleno akademikom N.S. Shatskim.
(Lower Tunguska Valley--Geology, Stratigraphic)

TSEYTLIN, S.M.

Glacial sediments in the middle Lower Tunguska Valley and their
stratigraphic position. Trudy GIN no.32 115-121 '59.
(MIRA 13:12)

(Lower Tunguska Valley--Geology, Stratigraphic)

SHILINA, G.P.; TSEYTLIN, S.M.

First find of kimberlites in the Aldan shield. Sov.geol.
2 no.10:132-136 0 '59. (MIRA 13:4)

1. Geologicheskii institut AN SSSR.
(Aldan Plateau--Kimberlite)

ZAKHAROV, M.V.; CHISTYAKOV, Yu.D.; BAZHBEUK-MELIKOVA, I.G.; TSEYTLIN,
S.N.

Searching for new copper alloys for a gold-colored metallization
of glass. Issl.splav.tsvet.met. no.2:184-188 '60.
(MIRA 13:5)

(Copper alloys) (Metal spraying)

TSEYTLIN, S.Yu., kand.tekhn.nauk

Stress losses during the electrothermal tensioning of bent rods.
Bet.1 zhel.-bet. 9 no.12:542-545 D '63. (MIRA 17:2)

RATTS, E.G., kand.tekhn.nauk; TSEYTLIN, Sh.Yu., kand.tekhn.nauk

Improvement of prestressed structural units of industrial buildings
and methods of manufacture. Prom. stroi. 39 no.3:20-24 '61..
(MIRA 14:4)

1. Nauchno-issledovatel'skiy institut Zhelezobeton Gkvmospromstroy-
materialov.

(Prestressed concrete)

KOLODEY, Anton Pavlovich, inzh.; KHANIN, Georgiy Fedorovich, inzh.;
TSEYTLIN, Sholom Yudovich, kand. tekhn. nauk; DUMASHOV,
Yu.F., red.; YEVDOKIMOVA, Ye.D., red. izd-va; LELYUKHIN,
A.A., tekhn.red.

[Elements of the projecting parts on building facades; their
maintenance and repair] Konstruktsii vystupaiushchikh cha-
stei na fasadakh zdani, ikh sodержanie i remont. Pod ob-
shchei red. G.F.Khanina. Moskva, Izd-vo M-va kommun.khoz.
RSFSR, 1962. 198 p. (MIRA 15:10)
(Façades--Maintenance and repair)

16.6500

32894

S/044/61/000/012/050/054

C111/C222

AUTHOR: Tseytlin, Sh. Yu.

TITLE: Optimal operators in the method of differences and their application to the calculation of plates and shells

PERIODICAL: Referativnyy zhurnal, Matematika, no. 12, 1961, 48, abstract 12V282. ("Issled. po teorii sooruzh." Vyp. 9. M., Gosstroyizdat, 1960, 207-245

TEXT: Described is a method for solving boundary value problems with the aid of "optimal operators" of finite differences. This method allows a practically exact solution with a minimally narrow net. By applying the Taylor series to calculate the operators of finite differences, one obtains new operators of even, odd and mixed derivatives. These operators can be used to solve a large class of problems, if the differentiations take place in the plane as well as in space. Examples are given for the presentation of boundary conditions in finite differences. An algorithm is constructed to solve two-dimensional problems; this algorithm is used to calculate quadratic plates with uniformly distributed stress under the condition of a supported or clamped boundary. Further, thin flat shells are examined and a

Card 1/2

4

32894

Optimal operators in the method of ...
classification of these shells is given.

S/044/61/000/012/050/054
C111/C222

[Abstracter's note: Complete translation.]

Card 2/2

TSEITLIN, Sh. Yu., kand. tekhn. nauk (Moskva).

Combined panel loads on coverings. Issl. po teor. sooruzh. no.7:
521-531 '57. (MLRA 10:9)
(Concrete construction) (Graphic statics)

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 7, p 89 (USSR) SOV/124-58-7-7919

AUTHOR: Tseytlin, Sh. Yu.

TITLE: On the Joint Working of Overlapping Panels (O sovmestnoy rabote paneley perekrytiy)

PERIODICAL: V sb.: Issledovaniya po teorii sooruzheniy. Nr 7. Moscow, Gosstroyizdat, 1957, pp 521-531

ABSTRACT: The problem reduces to analyzing a system of plates simply supported along two of their parallel edges and joined together by hinges which transmit the reactions of the supported edges. The solution to the problem arrived at has the M. Levi form, the load on the edge of the plate being taken as the unknown. Included are graphs which simplify the calculations.

A. A. Kurdyumov

Card 1/1

1. Metal plates--Load distribution 2. Metal plates--Theory

TSEYTLIN, Sh.Yu., kand.tekhn.nauk (Moskva)

Optimum operators in the method of finite differences and their
use in designing plates and shells. Issl. po teor. sooruzh.
no. 9:207-245 '60. (MIRA 14:1)
(Elastic plates and shells)

TSEYTLIN, Sh. Yu.

"Calculation of Shallow Shells, Rectangular in Plan, on the Basis of Professor V. Z. Vlasov's Theory." Thesis for degree of Cand. Technical Sci. Sub 23 May 50, Moscow Order of Labor Red Banner Engineering Construction Inst imeni V. V. Kuybyshev

FDD Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva. Jan-Dec 1950.

TSEYTLIN, Sh.Yu., kand.tekhn.nauk; MILOVIDOV, K.I., inzh.

Crack resistance of eccentrically compressed prestressed
elements with square section. Bet. 1 zhel.-bet. 8 no.11:498-501
N '62. (MIRA 15:11)

(Prestressed concrete--Testing)

RATTS, E.G., kand.tekhn.nauk, laureat Leninskoy premii; TSEYTLIN, Sh.Yu.,
kand.tekhn.nauk; ALIYEV, Sh.A., inzh.

Study of precast reinforced concrete foundations reinforced with
prestressed elements. Sbor. trud. NIIZhelezbetona no.5:3-19
'61. (MIRA 16:3)
(Foundations) (Precast concrete—Testing)

TSEYTLIN, Sh.Yu., kand.tekhn.nauk; MILOVIDOV, K.I., inzh.

Some data about the effect of time on deformations of an
eccentrically compressed element with cracks in its upper surface.
Sbor. trud. NII Zhelezobetona no.5:107-117 '61. (MIRA 16:3)
(Prestressed concrete--Testing)

TSEYTLIN, Sh.Yu., kand.tekhn.nauk; MILOVIDOV, K.I., inzh.

Crack resistance of eccentrically compressed prestressed elements.
Sbor. trud. NII Zhelezobetona no.5:61-106 '61. (MIRA 16:3)
(Prestressed concrete--Testing)

RATTS, Emmanuil Genrikhovich, kand.tekhn.nauk; TSEYTLIN, Sholom Yudovich,
kand.tekhn.nauk; MASARSKIY, Aba Solomonovich; SHCHUKIN, Viktor
Semenovich; starshiy inzh.; UKRAINCHIK, M.M., inzh., red.

[Large prestressed concrete "Double T" slabs for roofs of buildings]
Predvaritel'no napriazhennye zhelezobetonnye krupnye paneli
"dvoynoe T" dlia pokrytii zdani; iz opyta NIIZhelezobetona i
zavoda No.22 Glavmospromstroimaterialov. Moskva, Gos.izd-vo lit-ry
po stroit., arkhitekt. i stroit.materialam, 1960. 27 p.

(MIRA 14:12)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut organi-
zatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu.
Byuro tekhnicheskoy informatsii. 2. Zaveduyushchiy laboratoriyey
sbornykh zhelezobetonnykh konstruktсий Nauchno-issledovatel'skogo
instituta zhelezobetonnykh izdeliy i nerudnykh materialov (for Ratts).
3. Zaveduyushchiy sektorom inzhenernykh konstruktсий Nauchno-issledo-
vatel'skogo instituta zhelezobetonnykh izdeliy i nerudnykh mate-
rialov (for Tseytlin). 4. Glavnyy inzh. zavoda No.22 Glavmosprom-
stroymaterialov (for Masarskiy). 5. Nauchno-issledovatel'skiy
institut zhelezobetonnykh izdeliy i nerudnykh materialov (for
Shchukin).

(Precast concrete construction)
(Roofing, Concrete)

RATTS, E.G., kand.tekhn.nauk; TSEYTLIN, Sh. Yu., kand.tekhn.nauk

Improving prestressed elements of industrial buildings and ways
to prepare them. Prom. stroi. 39 no.4:32-37 '61. (MIRA 14:6)
(Prestressed concrete)

ISAYEV, V.; TSEYTLIN, V.

Quality should be perfect. Mashinostroitel' no.10:14-15 0 '61.
(MIRA 14:9)

(Leningrad—Machinery industry)

USSR / Magnetism. Ferromagnetism

F - 4

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9525

Author : Volkov, D.I., Chechernikov, V.I., Tseytlin, V.B.

Inst : Not given

Title : Temperature Dependence of Magnetostriction of Ferromagnetic Alloys.

Orig Pub : Vestn. Mosk. un-ta, 1956, No 2, 21-28

Abstract : An experimental study was made of the temperature dependence of the magnetostriction of saturation λ_s of ferromagnetic alloys with a nickel base (Ni-Cu, Ni-Co, Ni-Mn and a Ni-Fe alloy with 45% nickel) in the temperature region close to the Curie point. It was established that in this temperature region the variation of λ_s with T is linear in character, and this is in accordance with the theory of the temperature dependence of even Akulov effects. For Ni-Co al-

Card : 1/3

USSR / Magnetism..Ferromagnetism

F - 4

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9525

Abstract : loys (2.4 and 6% Co) and the Ni-Fe alloy (45% Ni) this linear dependence of λ_s on T is observed in a greater range of temperatures than for Ni-Cu and Ni-Mn. It is noted that on the $\lambda_s(T)$ curves of the Ni-Cu and Ni-Mn alloys (3.7 and 8.5 atomic percent of manganese), in the direct vicinity of the Curie point (θ), there appear clearly pronounced asymptotic "tails" which vanish at $T_k > \theta$. For the case of Ni-Cu alloys, the authors establish the dependence of T_k on the composition of the alloy. The authors propose that such "tails" on the $\lambda_s(T)$ curves are due to micro-irregularities in the composition and to the appearance of magnetic ordering at close distance. A study of the temperature dependence of λ_s for Ni-Co alloys (29 and 30.5% Ni) which have an allotropic transformation, has shown that at the transfor-

Card : 2/3

USSR / Magnetism . Ferromagnetism

F - 4

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9525

Abstract : mation temperature jumps appear in saturation magnetostriction, the λ_s (T) curves have considerable hysteresis, and the hysteresis loop remains unclosed at room temperatures.

Card : 3/3

TSEYTLIN, V.B.; KINBER, B.Ye.

Measurement of the coefficient of directivity of horn antennas
at a short distance. Radiotekh. i elektron. 10 no.1:14-20 Ja '65.
(MIRA 18:2)

VOLKOV, D.I.; CHECHERNIKOV, V.I.; TSEYTLIN, V.B.

Temperature dependence of the magnetostriction of ferromagnetic alloys. Vest.Mosk.un.11 no.2:21-28 F '56. (MLRA 9:8)

1. Kafedra magnetizma.

(Magnetostriction) (Ferromagnetism)

TSEYTLIN, V.B.

Optimum pre-emphasis in multichannel FM radio relay lines with
frequency-division multiplex. Elektrosvaz' 16 no.11:11-16
N '62.

(MIRA 15:11)

(Radio relay systems)

L 00844-66 EWT(1)/EEC-4/T/FCS(k) NR
ACCESSION NR: AP5015815

UR/0109/65/010/006/1127/1131 30
621.396.6711001 B

AUTHOR: Tseytlin, V.B. *25B, 44*

TITLE: Measuring side-lobe radiation and phase diagrams of antennas in the near region

SOURCE: Radiotekhnika i elektronika, v. 10, no. 6, 1965, 1127-1131

TOPIC TAGS: antenna, antenna radiation, directional pattern

ABSTRACT: The errors accompanying the measurement of directional-pattern parameters (set forth in a previous author's article) are theoretically investigated. By transforming and analyzing a basic equation for the receiving-antenna field amplitude, formulas for these error types are derived: (1) Shift of the minima and maxima of the measured pattern from the zeros and maxima of the true pattern; (2) Errors of measurement of the pattern minima and maxima; (3) Error in the measurement of the major-lobe half-width. "The author wishes to thank B.Ye. Kinber for his direction of this work." Orig. art. has 3 figures and 24 formulas. *44*

ASSOCIATION: none

SUBMITTED: 12Oct64

ENCL: 00

SUB CODE: EC

NO REF SOV: 001

OTHER: 001

Card *1/1 mlr*

KINBER, B.Ye.; TSEYTLIN, V.B.

Measurement of the parameters of antennas in the field of a plane wave
created by a collimator. Radiotekh. i elektron. 10 no.7:1190-1201 J1
'65. (MIRA 18:7)

TSEYTLIN, V.B.

Measurement of side radiation and phase diagrams of antennas in
the near zone. Radiotekh. i elektron. 10 no.6:1127-1131 Je '65.
(MIRA 18:6)

42061

S/106/62/000/011/001/003
A055/A126

6.9.50

AUTHOR: Tseytlin, V.B.

TITLE: Optimum pre-emphasis in multichannel radio-relay lines with frequency multiplexing and frequency modulation

PERIODICAL: Elektrosvyaz, no. 11, 1962, 11 - 16

TEXT: For the calculation of optimum pre-emphasis characteristics the author takes into account the fact that pre-emphasis causes not only a redistribution of noises in channels, but also a variation of the total noise power in the group spectrum. The ideal characteristic is that with which equalization of noise levels in channels and minimization of the total noise power are reached simultaneously. The author finds an approximate optimum characteristic ensuring the minimum total noise power in the group spectrum. He assumes that the multi-channel communication is a normal stationary random process and that the group spectrum begins from zero frequency. The total noise power in the group spectrum at the output of the restoring circuit is

Card 1/3

S/106/62/000/011/001/003
A055/A126

Optimum pre-emphasis in multichannel

$$P_{\text{tot}}(f) = \int_0^1 \sigma_{\text{tot}}(y) dy \quad (7)$$

where $\sigma_{\text{tot}}(y)$ is the relative spectrum of the total noise (at the output of the restoring circuit) in the presence of pre-emphasis, $y = F/F_{\text{up}}$, F is the present frequency and F_{up} the upper frequency of the group spectrum. The problem consists in finding the modulus of the pre-emphasis-circuit transmission factor $f(y)$ at which is obtained the minimum value of the integral in (7), and which satisfies also the condition:

$$\int_0^1 f(y) dy = 1. \quad (8)$$

To find the minimum of the integral the author writes: $f(y) = \frac{p}{\text{sh } p} \text{ch } py$, (9) and determines the parameter p so that the total power $P_{\text{tot}}(p)$ should be minimum. Substituting (9) in the expressions for $\sigma(y)$ for fluctuation noises,

Card 2/3

Optimum pre-emphasis in multichannel

S/106/62/000/011/001/003
A055/A126

static noises of the second and third order and dynamic noises of the second and third order, he obtains (after integration):

$$P_{\text{tot}}(p) = \alpha_{f1} P_{f1}(p) + \alpha_{st2} P_{st2}(p) + \alpha_{st3} P_{st3}(p) + \alpha_{dyn2} P_{dyn2}(p) + \alpha_{dyn3} P_{dyn3}(p), \quad (15)$$

where α_{f1} , α_{st2} , etc., stand for the power of the corresponding noise (in the upper channel and with respect to the total noise power) in the absence of pre-emphasis. Knowing the various α , it is easy to calculate (with the aid of graphs reproduced in the article) the value of $P_{\text{tot}}(p)$ for a set of values of p . The value p_0 corresponding to the minimum of P_{tot} is considered as the optimum value. If the obtained noise-distribution in channels proves unsatisfactory, the value of p is altered in accordance with the curve $\sigma_{\text{tot}}(y)$. The calculations implied by the described method are simpler than in the case of the noise equalization method. A numerical example shows that both methods give practically equivalent results. The two methods must be considered as being complementary. There are 6 figures.

SUBMITTED: June 7, 1962

Card 3/3

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0"

L 1173-66 EWT(1)/T/FCS(k) WR

ACCESSION NR: AP5017656

UR/0109/65/010/007/1190/1201
621.317.729.3:621.396.67.095

AUTHOR: Kinber, B. Ye.⁴⁴; Tseytlin, V. B.⁴⁴

38
B

TITLE: Measuring antenna parameters in the field of a plane collimator-formed wave

SOURCE: Radiotekhnika i elektronika, v. 10, no. 7, 1965, 1190-1201
^{25B, 44}

TOPIC TAGS: antenna directivity

ABSTRACT: Errors accompanying the measurements of the antenna directional pattern by means of an auxiliary antenna (collimator) shaping a plane-wave segment are considered. Only the errors due to inexact realization of the plane wave are investigated: finite cross-section of the beam, amplitude gradients, stray fields, distance between the main and the auxiliary antennas, auxiliary-antenna configuration, field shape outside the plane-wave segment, etc. It is assumed that the plane-wave segment is formed in the aperture of a quasi-optical antenna (lens, mirror, horn-paraboloid, etc.). A fundamental formula is derived whose analysis yields formulas describing the above types of errors. Orig. art. has: 6 figures and 40 formulas.

Card 1/2

L 1173-66

ACCESSION NR: AP5017656

ASSOCIATION: none

SUBMITTED: 04May64

NO REF SOV: 006

ENCL: 00

SUB CODE: EC, MA

OTHER: 001

Card 2/2

DP

1000 1000 1000
1000 1000 1000
1000 1000 1000

Card 1/2

1149. 175

ADDITIONAL INFORMATION

1. The following information is determined with no
allowance for possible error.

ASSOCIATION: none

SUBMITTED: 22Jun63

ENCL: 00

SUB CODE: 00

NO REF SOURCE

OTHER: 000

KINBER, B.Ye.; TSEYTLIN, V.B.

Error in measuring directive gain and the radiation patterns of antennas at close distances. Radiotekh. i elektron. 9 no.9:1581-1593 S '64.
(MIRA 17:10)

TSEYTLIN, V.G.

Errors of flow-switching devices in flow-measuring units. Izv.
tekhn. no.2:55-58 F '62. (MIRA 15:2)
(Flowmeters)

TSEYTLIN, V.G.

New method for hydrostatic weighing of liquids. Izm.tekh. no.1: .
27 Ja '60. (MIRA 13:5)

(Physical measurements)

TSEYTLIN, V.G.

Turbine and piston method for measuring mass consumption and density
of liquids. Izv.tekh. no.2:34-37 F '64. (MIRA 17:4)

TSEYTLIN, V.G.

Causes of annular gas showings after cementing gas-well casings and methods for their prevention. Buren'ie no.2:16-19 '64. (MIRA 18:5)

1. Sredneaziatskiy filial Vsesoyuznogo neftegazovogo nauchno-issledovatel'skogo instituta.

ACCESSION NR: AP4016587

S/0115/64/000/002/0034/0037

AUTHOR: Tseytlin, V. G.

TITLE: "Turbopiston" method of measuring mass flow and density of liquids

SOURCE: Izmeritel'naya tekhnika, no. 2, 1964, 34-37

TOPIC TAGS: mass flow, rate of flow, measuring mass flow, measuring liquid density, turbopiston flowmeter, turbopiston densimeter

ABSTRACT: A new instrument suggested for measuring the rate-of-flow and density of a liquid consists of two sensors: one with a miniature axial turbine and the other with a piston. The angular velocity of the turbine is proportional to the rate-of-flow; the piston measures the hydrodynamic pressure which depends on the velocity and density of the flow. In the housing 1 (see Enclosure 1), a turbine 2 is fastened to a piston 3 which can travel axially and rotate in the stationary cylinder 4 supported by 5. A pressure is set up in the cylinder 4 proportional to the static pressure of the stream plus the hydrodynamic head applied axially to both the turbine and the piston. A tube 6 conveys this pressure

Card 1/2

ACCESSION NR: AP4016587

to a differential manometer 7 whose second cavity is connected by a tube 8 with a ring chamber 9. Thus, the manometer measures only the dynamic component of the flow pressure. Press 10 compensates for leakage around the piston. Counter 11 measures the angular velocity of the turbine. The procedures followed in designing this new instrument are described, and design formulas supplied. Tests of five experimental models permit the author to claim an error of as low as 0.5% and a high durability of the instrument. Its shortcomings (leakage and the necessity of a computing device) are also noted. Orig. art. has: 3 figures and 15 formulas.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 12Mar64

ENCL: 01

SUB CODE: IE

NO REF SOV: 004

OTHER: 001

Card 2/2

SOV/11553-5-12/36

AUTHOR: Perchikhin, K.I. and Tseytlin, V.G.

TITLE: Float Devices for Measuring the Mass of Liquids
(Poplavkovyye pribory dlya izmereniya massy zhidkosti)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 5, pp 26-28 (USSR)

ABSTRACT: The paper examines the principles and the construction of a float device for measuring the mass of liquids. The device consists of a vessel with a neck on which a water gauge is marked, and of a special float. The principle of the device is as follows: When the vessel is filled with a fluid of definite mass, the float occupies an invariable position with regard to the water mark irrespective of the liquid's density. The latter corresponds to the fluid level where $\rho = \rho_0$, where ρ_0 is the density of the fluid which was used for calibration. When the density changes from ρ_0 to ρ , the level of the fluid will change a specific amount in regard to the water mark line. The paper then develops formulae for calculating these amounts.

Card 1/2

SOV/115-58-5-12/26

Float Devices for Measuring the Mass of Liquids

These calculations reveal that an error of less than 0.05%, with a change in fluid density of not more than 20%, can easily be guaranteed. The error in measurement can be reduced to 0.01% for a fluid mass of more than 100 g and a density change of not more than 20%. The principle can be utilized for standard and everyday building dosimeters for measuring liquids in units of mass, discrete automatic mass counters, central pick-ups etc. The paper gives the design for such a device. Dosing apparatus differs from dosimeters only in the use of an automatic dosage device, consisting of induction coils which track the position of the float, contacts which activate the cut-off valves, bypass tubes etc. The author has constructed a dosimeter for measuring a liquid mass of 500 g. Experiments have shown that the maximum error when measuring the mass of various fluids (water, kerosene and gasoline) does not exceed $\pm 0.15\%$. There are 2 diagrams and 1 Soviet reference.

Card 2/2

KOKUSHKINA, A.S., otv. red.; TSEYTLIN, V.G., red.; CHURAKOVA, V.A.,
tekhn. red.

[Safety engineering regulations for the installation and
maintenance of radio relay stations and networks] Pravila tekhniki
bezopasnosti pri ustroistve i obsluzhivani stantsii radiotransliatsionnykh
uzlov. Moskva, Sviaz'izdat, 1962. 38 p.
(MIRA 16:6)

1. Russia (1923- U.S.S.R.) Ministerstvo sviazi Soyuza SSR.
Laboratoriya okhrany truda.
(Radio relay systems--Safety regulations)

L 46215-66 EWT(1) TG
ACC NR: AP6014223

SOURCE CODE: UR/0115/66/000/003/0015/0019

AUTHOR: Tseytlin, V. G.

ORG: none

TITLE: Problems of reliability of measuring devices

SOURCE: Izmeritel'naya tekhnika, no. 3, 1966, 15-19

TOPIC TAGS: reliability theory, reliability engineering, measuring instrument

ABSTRACT: Three theoretical problems frequently encountered in supervision and checking of measuring instruments are considered: (1) The metrological reliability of measuring instruments which is evaluated by the probability of their faultless operation (formulas for the function of metrological failures, the mean time to first instrument failure, and the failure hazard are derived); it is noted that the failure hazard increases up to a certain time point and then falls off; (2) The certainty of a measurement result obtained as a mean arithmetic value of readings of k measuring instruments (formulas are given for the probability that the result will not contain a higher-than-tolerable error); (3) Selecting the number of reserve instruments which ensure, with a specified probability, faultless operation of N identical measuring instruments during a specified time. Orig. art. has: 1 figure and 44 formulas.

SUB CODE: 14 / SUBM DATE: none / ORIG REF: 003

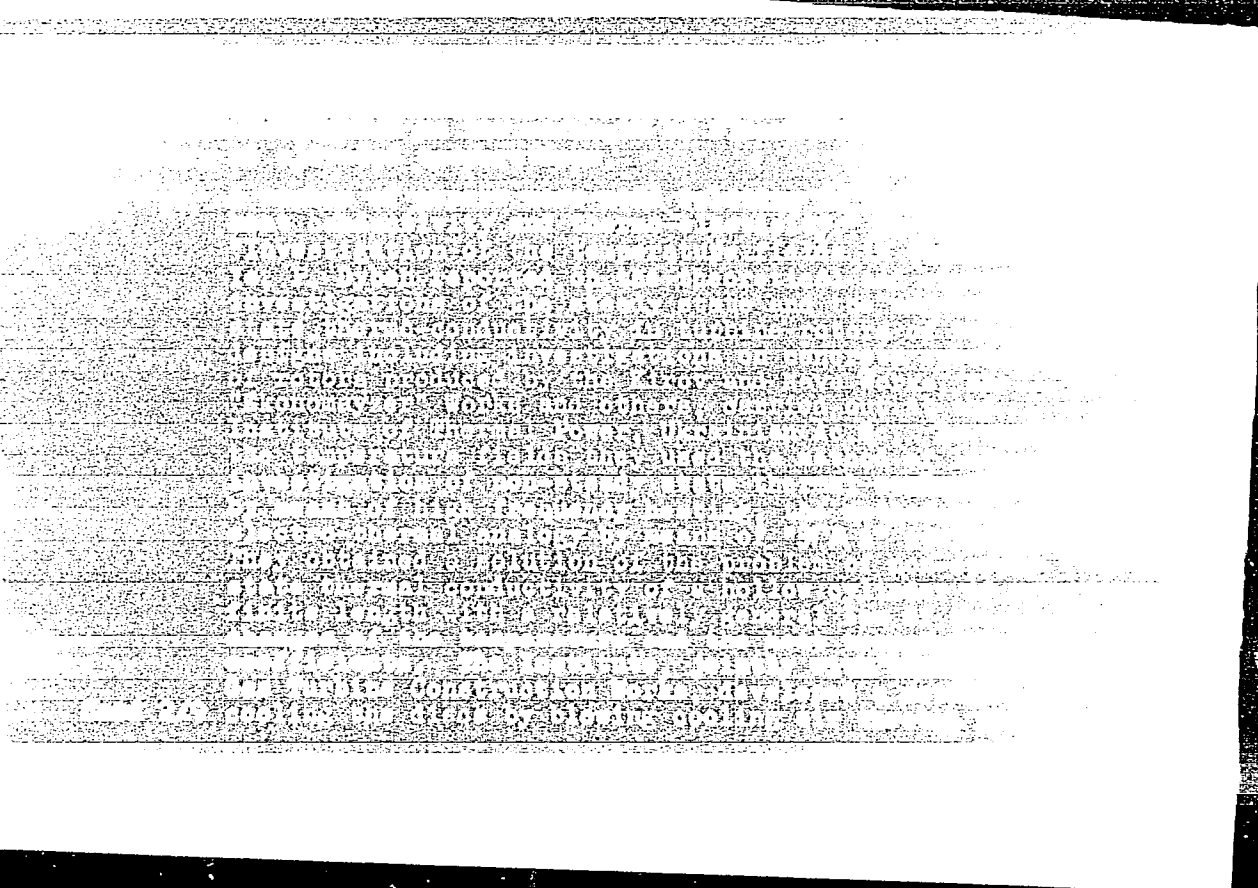
UDC: 681.2.018.3

TSEYTLIN, V.I.

6-9

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0



APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0"

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0"

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0"

machinery at elevated temperatures.

[illegible]

Yu. N. Kallinovskiy (NII) dealt with the results of investigation of the carrying capacity and the long duration strength of specimens of reinforcing steel bars under a combined bending-torsion loading, and also under operating conditions. The author described the features of the testing type of the testing equipment which ensured the possibility of long duration tests of natural fibers by means of

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0"

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0"

TSEYTLIN, V.L. (Murmansk); TIMOFEYEV, N.N., prof., nauchnyy rukovoditel'.

Mental disorders in systemic lupus erythematosus. Zhur.nevr.
i psikh. 63 no.2:259-262 '63 (MIRA 16:11)

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 3, 1965, 79

2000, p. 100; see also, e.g., 1999, p. 12, 1998, p. 19).

APPROXIMATELY 1964-1965. THE ABOVE INFORMATION WAS OBTAINED FROM THE RECORDS OF THE BUREAU OF THE ARMY, WASHINGTON, D.C.

Applied Chemistry,

SUBMITTED: 08Jul63

ENC: 00

SUB CODE: FP, GC

NO REF 307. 000

STATE: OH

Card 1/1

28(5)

AUTHORS: Yagn, Yu. I., Kovalov, K. F., Myakinin, L. V., SOV/32-25-6-46/53
Pavlov, P. A., Tseytlin, V. Ya.

TITLE: Device for Testing Simultaneous Extension and Torsion (Ustanovka
dlya ispytaniy na odnovremennoye rastyazheniye i kruchenkiye)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 6, pp 756-757 (USSR)

ABSTRACT: A device was constructed which permits a simultaneous extension (with a load of up to 125 t) and torsion (with a torsional moment up to 7000 kgm) (Fig) for the testing of axial-models of hydroturbines with respect to construction variants designed by the Leningradskiy metallicheskiy zavod (Leningrad Metal Works) for the Kuybyshevskaya i Bratskaya GES (Kuybyshev and Bratsk Hydroelectric Power Plants). The arrangement is in principle a hydraulic press with a system for the extension of the sample between the piston and the upper traverse. Torsion is carried out with hydraulic jacks up to an angle of 9° , may, however, go still further. Since in connection with simultaneous extension and torsion higher friction is caused, load is measured with a special dynamometer; the deformation measurements by the dynamometer may be made according to various principles (Ref 1). There are 2 figures and 1 Soviet reference.

Card 1/2

Device for Testing Simultaneous Extension and Torsion

SOV/32-25-6-46/53

ASSOCIATION: Leningradskiy politekhnicheskoy institut im. M. I. Kalinina
Leningrad Polytechnic Institute imeni M. I. Kalinin)

Card 2/2

TSEYTLIN, V.Z., kand.tekhn.nauk; KALUGINA, I.I., inzh.

Relaxation strength of highly resistant cast iron with spheroidal
graphite. Metalloved. i term. obr. met. no.8:11-14 Ag '62.
(MIRA 15:11)

1. TSentral'nyy nauchno-issledovatel'skiy institut tekhnologii i
mashinostroyeniya i Moskovskiy vecherniy mashinostroitel'nyy
institut.

(Cast iron--Testing) (Strains and stresses)

1. S. E. Y. T. - IN, 4 - 1.

Means of intensifying the steel cementation process in a hard carburizer. V. Z. Tsel'tlin. *Vestnik Mashinostroyeniya* 27, No. 3, 45-52(1947).--Assuming that the furnace, carburizer, steel, and size of work piece remain the same, the factors which determine the duration of cementation are temp., design of cementation box, and method of packing. As to temp., the cementation process will be greatly accelerated by charging the boxes into the furnace at approx. 980° and keeping at this temp. until the boxes are heated. The cementation itself should be carried out at 950-960°, and the boxes discharged at this temp. A better design of the boxes will also speed up cementation. The boxes should be preferably cylindrical, provided with a tube in the center to promote better distribution of heat, enlarge the height but not the diam. of the box, and make them of high temp. steel, or for the sake of economy, of aluminized iron. In packing the boxes decrease the thickness of the carburizer interlayers and seal tight the box; these measures will hasten cementation.

M. Hosh

TSEYTLIN, V. Z.

"Investigation of the Relaxation Process in Pearlitic Steel for the Reinforcing Parts of High-Pressure Installations." Thesis for degree of Cand. Technical Sci. Sub 22 May 50, Central Sci Res Inst of Technology and Machine Building

~~For~~ Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva. Jan-Dec 1950.

13

Criteria of Relaxation of Steels and Their Application. (In Russian.) I. A. Odling and V. Z. Tseitlin. *Doklady Akademii Nauk SSSR* (Reports of the Academy of Sciences of the USSR), new ser., v. 71, Apr. 11, 1950, p. 884-886.

Proposes charting of relaxation curves on semilogarithmic coordinates. This method establishes in simple form two important criteria: coefficient of intragranular resistance, and intergranular relaxation stability of the metal. These new concepts are explained on the basis of theoretical considerations. Method of application, particularly to the problem of thermal resistance of metals, is indicated. Relaxation curves for three austenitic steels at room temperature are presented.

TSEYTLIN, V.Z., kandidat tekhnicheskikh nauk.

Relaxation of steel used for fastenings. Trudy TSNITMASH
45:87-162 '52. (MLRA 9:2)
(Creep of metals) (Steel--Testing)

TSAYTLIN, V.Z.

Effect of heat treatment on the relaxation resistance of perlite
steel. Trudy Sem.po proch.det.mash. 1 no.2:31-43 '53. (MLRA 7:1)
(Steel--Heat treatment) (Creep of metals)

"APPROVED FOR RELEASE: 03/14/2001

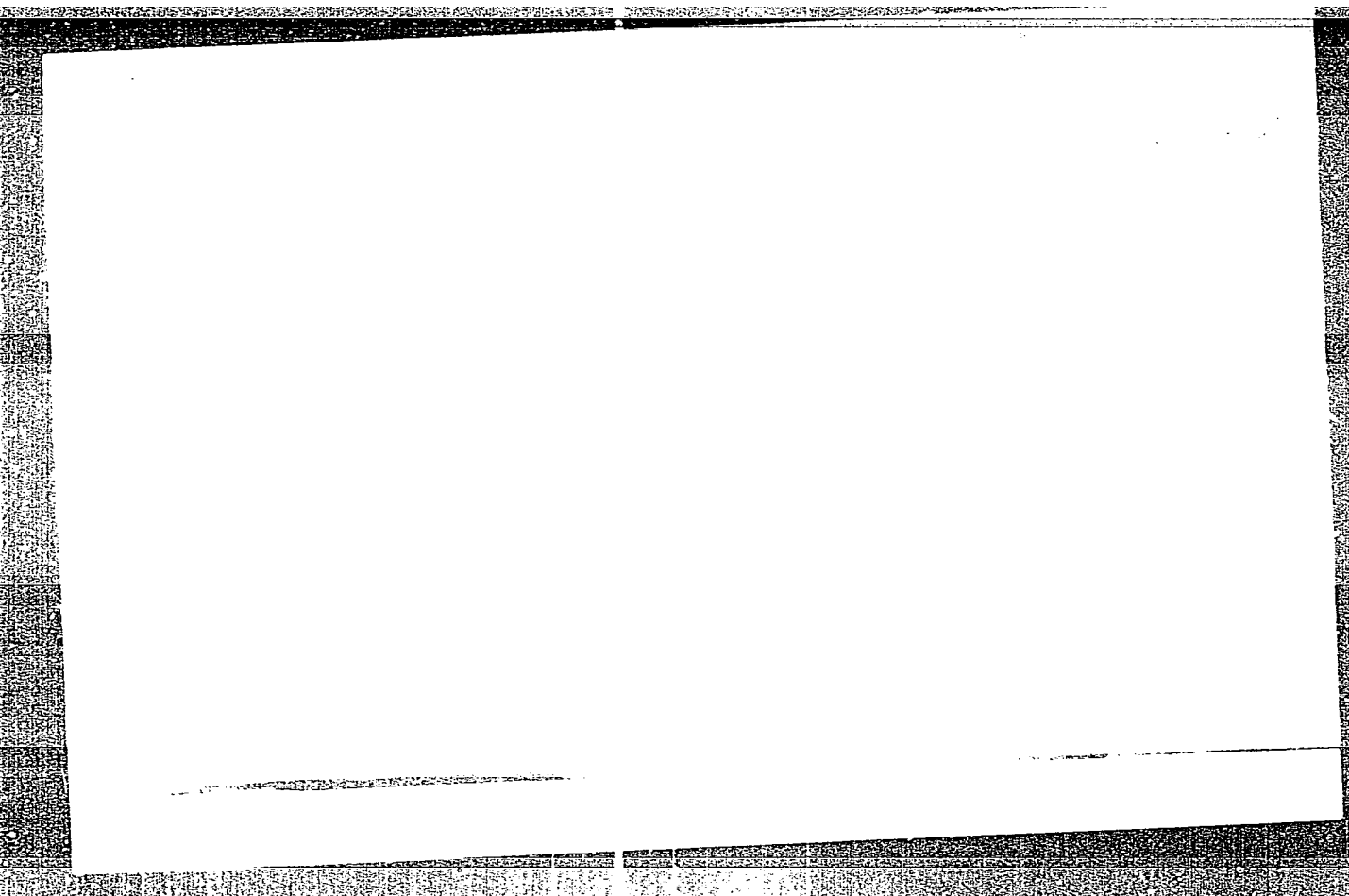
CIA-RDP86-00513R001757020009-0

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0"

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0



APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0"

VOLKOVA, T.I., kandidat tekhnicheskikh nauk; TSEYTLIN, V.Z., kandidat tekhnicheskikh nauk.

Effect of small additions of alloying elements on the relaxation resistance of carbon steel. [Trudy] TSNIITMASH 71:233-241 '55.
(MLBA 9:8)

(Steel) (Creep of metals)

"APPROVED FOR RELEASE: 03/14/2001

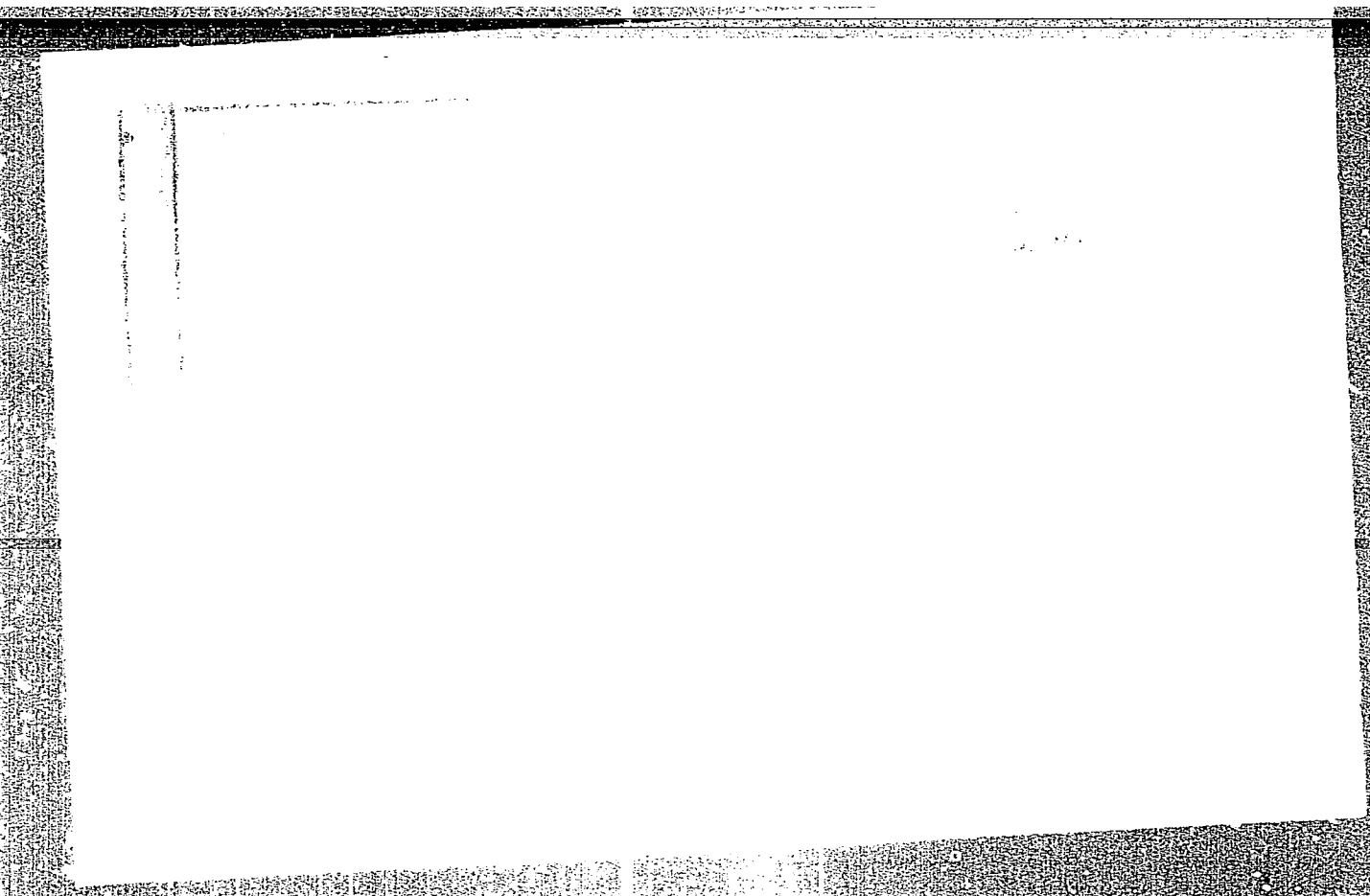
CIA-RDP86-00513R001757020009-0

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0"

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0



APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757020009-0"

TSEYTLIN, V.Z., kandidat tekhnicheskikh nauk.

Effect of the transformation of austenite in the intermediate zone
on the relaxation resistance of the steel. [Trudy] TSNIITMASH 71:
262-268 '55. (MLBA 9:8)

(Steel) (Creep of metals)

Tseytlin, V.S.

ALEKIN, Lev Yemel'yanovich, kandidat tekhnicheskikh nauk, dotsent; GLADILIN, Anatoliy Nikolayevich, kandidat tekhnicheskikh nauk, dotsent; KRASAVIN, Vasilii Stepanovich, starshiy prepodavatel'; LUNEV, Fedor Andreyevich, kandidat tekhnicheskikh nauk, dotsent; MAKAROVA, Vera Ivanovna, kandidat tekhnicheskikh nauk, dotsent; RASTORGUYEV, Ivan Sergeyevich, kandidat tekhnicheskikh nauk, dotsent; KHKENOV, Aleksey Dmitriyevich, starshiy prepodavatel'; TSEYTLIN, V.S., kandidat tekhnicheskikh nauk, redaktor; RZHAVINSKIY, V.V., inzhener, redaktor; SHUR, D.S., redaktor; EGGERT, A.P., tekhnicheskij redaktor.

[General technology of metals] Obshchaya tekhnologiya metallov. Moskva, Vses.uchebno-pedagog.izd-vo Trudrezervizdat, 1956. 327 p. (MIRA 9:6)
(Metalwork)

ACCESSION NR: AP4042620

S/0096/64/000/008/0054/0057

AUTHOR: Gulyayev, V. N. (Candidate of technical sciences); Tseytlin, V. Z. (Candidate of technical sciences); Ryabova, L. I. (Engineer); Talov, N. P. (Engineer); Bulanov, Yu. P. (Engineer)

TITLE: Effect of the duration of heating on the structure and properties of chromium-manganese-nickel steels

SOURCE: Teploenergetika, no. 8, 1964, 54-57

TOPIC TAGS: chromium manganese nickel steel, austenitic heat resistant steel, low nickel steel, austenitic steel, steel aging, steel corrosion, austenitic steel steam pipeline, OKh14N3G11AB steel, OKh18N5G12AB steel, 1Kh14N3G14T steel, 1Kh18N9T steel

ABSTRACT: In a search for substitutes for 1Kh18N9T (AISI321) steel in high-temperature steam service, the structure, phase composition, mechanical properties, and susceptibility to intergranular corrosion of three heat-resistant, stainless, low-nickel steels have been investigated after aging at 500, 550, and 650C for up to 2000 hr. Induction-melted ingots of the OKh14N3G11AB steel, OKh18N5G12AB steel,

Card 1/3

ACCESSION NR: AP4042620

and 1Kh14N3G14T steel were forged and air cooled from 1050C. In the 20—650C temperature range, the strength of the new steels in the initial state was equal to or higher than that of 1Kh18N9T steel. The room-temperature ductility of all the steels except OKh18N5G12AB was higher than that of 1Kh18N9T steel. At room temperature, OKh14N3G11AB steel had a notch toughness of 14—19 kgm/cm², OKh18N5G12AB steel, of 7—13 kgm/cm², and 1Kh14N3G14T steel, of 26—32 kgm/cm². Aging of Cr-Mn-Ni steels at 500C or higher produced diffusional decomposition of the supersaturated solid-solution austenite with the precipitation of chromium and manganese carbides and nitrides, predominantly along the grain boundaries. The diffusional decomposition of austenite of nitrogen-containing Cr-Mn-Ni steels induces hot brittleness in them, particularly in OKh18N5G12AB steel, whose notch toughness dropped to 2—4 kgm/cm² after 2000-hr aging at 650C. The steels became susceptible to intergranular corrosion after about 100-hr aging at 500C; however, the corrosion resistance gradually increased after about 1000-hr aging. In general, the investigated steels should not be used at temperatures higher than 460—470C when the operating conditions might promote intergranular corrosion by water and/or steam. In the absence of such a medium, an operating

Card 2/3

ACCESSION NR: AP4042620

temperature as high as 500C can be permitted, with no changes occurring in the structure or mechanical properties. Orig. art. has: 6 figures and 2 tables.

ASSOCIATION: VTI; TsNIICM

SUBMITTED: 00

ATD PRESS: 3083

ENCL: 00

SUB CODE: MM

NO REF SOV: 004

OTHER: 000

Cord 3/3